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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,758	02/12/2002	Hans-Helmut Bechtel	DE010040	9284

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT PAPER NUMBER

2882

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

mw

Office Action Summary

Application No.

10/074,758

Applicant(s)

BECHTEL ET AL.

Examiner

Elizabeth Keaney

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the Statement of Common Ownership filed 12 January 2004.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoo (US Patent 6,329,751).

Re claim 1: Yoo discloses, in figure 4 and throughout the disclosure, a plasma picture screen provided with a front plate comprising:

- a glass plate (32) to which a dielectric layer (53), a UV-reflecting layer (61), and a protective layer (62) are applied,
 - wherein the protective layer (62) contacts the gas,
- a back plate (31) provided with:
 - a phosphor layer (50) and
 - a ribbed structure (45) subdividing the space between the front plate and the back plate into plasma cells which are filled with a gas (column 2, line 1), and
- one or more electrode arrays (43,44,41) on the front plate (32) and the back plate (31) for generating corona discharges in the plasma cells,
 - wherein UV light with a wavelength of greater than 172nm (column 4, line 52) is produced by the discharges.

Regarding the limitation of the UV light having a wavelength of greater than 172nm, Yoo discloses the UV reflecting layer having a reflectance of ultraviolet light of 100-200 nm wavelength therefore it would have been obvious that the electrode arrays would produce a UV light within the range of 100-200nm.

Re claim 2: Yoo discloses the UV light having a wavelength of between 200 and 350 nm (column 4, line 52) being produced in the corona discharges.

Re claim 4: Yoo discloses the UV-reflecting layer comprising a metal fluoride or metal oxide (column 4, line 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo as applied to claim 1 above, and further in view of Swada et al. (US Patent 6,583,561; hereinafter Swada).

Yoo shows all the limitations as shown above.

However, Yoo is silent as to the specific gas used within the plasma display.

Swada teaches a plasma display device having a gas comprised of halides of rare gases (column 6, lines 45-47).

It would have been obvious to one of ordinary skill in the art to substitute a halide of rare gas within the discharge space of the plasma display of Yoo because it increases the wavelength of the UV light thereby increasing the brightness of the display while not increasing the power consumption of the device.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo as applied to claims 1 and 4 above, and further in view of Taruishi et al. (US Patent 6,572,973, hereinafter Taruishi).

Yoo shows all the limitations above, including a UV-reflective layer.

However, Yoo is silent as to the UV-reflective layer containing particles of specific sizes.

Taruishi discloses a UV-reflective layer (column 9, lines 2-3) for use in a plasma display panel (column 1, line 10) containing particles having a diameter between 20nm and 150nm (column 9, lines 8-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a UV-reflective layer containing particles with a diameter between 20nm and 150nm because by using a layer with that particular particle size it optimizes the reflective ability of the layer while keeping the layer transparent.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo as applied to claim 1 above, and further in view of Okumura et al. (US Patent 6,100,633, hereinafter Okumura).

Yoo shows all the limitations as shown above.

However, Yoo is silent as to the thickness of the UV-reflective layer.

Okumura discloses a UV-reflective layer (column 10, line 22) within a plasma display (column 1, line 5) having a thickness of $3\mu\text{m}$.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a $3\mu\text{m}$ thick UV-reflective layer within Yoo because a layer of that thickness optimizes the amount of UV light reflected back to the phosphors while preventing extraneous deterioration to the dielectric layer and the front substrate thereby increasing the life of the device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,611,099 discloses a UV-reflective layer within a plasma display device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER